

AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraphs beginning at page 162, line 1 through page 163, line 5, with the following paragraphs:

EXAMPLE 1

Examples for $N^1_m B_i N^2_n$

a. N^1 and N^2 as identical tetramers, B as a trimer

$N^1 = N^2$, $m = n = 4$, $i = 3$, $B = 64$ sequence permutations (SEQ ID. NO: 150)

GTGC ATG GTGC

AAG

ACG

AGG

TTG

CTG

GTG

...

...

...

GGG

b. N^1 and N^2 as non-identical tetramers, B as a tetramer

$N^1 \text{ [[+]] } \perp N^2$, $m = n = 4$, $i = 4$, $B = 256$ sequence permutations (SEQ ID. NO: 151)

GTCC ATCG CTAC

AACG

ACCG

AGCG

....

....

....

GGGG

c. N^1 as a heptamer, N^2 as an octamer, B as an octamer

$N^1 \text{ } [[+]] \perp N^2$, $m = 7$, $n = 8$, $i = 8$, $B = 65,536$ sequence

permutations (SEQ ID. NO: 152).

GCTGCCC
 N^1

ATTCGTAC
 B

GCCTGCCC
 N^2

EXAMPLE 2

Separation of proteins on a DNA array

$N^1_m B_i N^2_n (S^1)_t M(R^{15})_a (S^2)_b \text{LXProtein}$ where B is a trimer;

$m = n = 4$, $i = 3$, $t = b = 1$; underlined sequences are N^1 and N^2

SEQ ID NO: 153

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/ | CTGC ATG GTGC -  $S_1$  -  $M(R^{15})_a$  -  $S_2$  - L - X - Protein 1
/ | ---CACG TAC CACG
/ |
/ | CTGC AAG GTGC -  $S_1$  -  $M(R^{15})_a$  -  $S_2$  - L - X - Protein 2
/ | ---CACG TTC CACG
/ |
/ | CTGC ACG GTGC -  $S_1$  -  $M(R^{15})_a$  -  $S_2$  - L - X - Protein 3
/ | ---CACG TGC CACG
/ | ...
/ | ...
/ | ...
/ | CTGC GGG GTGC -  $S_1$  -  $M(R^{15})_a$  -  $S_2$  - L - X - Protein 64
/ | ---CACG CCC CACG
/ |

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SEQ ID NO: 154